Electronic Version
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# Claims

[c1] What is claimed is:

1. A method of routing a data of an IP-based PBX extension to a host comprising:

(a) driving the IP-based PBX extension to request a virtual IP address from an IP sharing device;

(b) driving the IP-based PBX extension having the virtual IP address to output a packet having the data through the IP sharing device;

(c) utilizing a sender with a first IP address to deliver the packet received from the IP sharing device to the host with a second IP address through a computer network; and

(d) utilizing the host to extract the data from the packet.

[c2] 2. The method of claim 1 wherein step (a) further comprises utilizing either a wired transmission protocol or a wireless transmission protocol to access the IP sharing device for requesting the virtual IP address.

[c3] 3. The method of claim 2 further comprising:

before step (a) is performed, checking if the IP-based PBX extension is capable of accessing the IP sharing device through the wired transmission protocol;

wherein if the IP-based PBX extension is capable of accessing the IP sharing device through the wired transmission protocol, the IP-based PBX extension utilizes the IEEE 802.3 protocol for requesting the virtual IP address, and if the IP-based PBX extension is not capable of accessing the IP sharing device through the wired transmission protocol, the IP-based PBX extension utilizes the wireless transmission protocol for requesting the virtual IP address.

[c4] 4. The method of claim 3 wherein the wired transmission protocol is an IEEE 802.3 protocol, and the wireless transmission protocol is an IEEE 802.11x protocol.

[c5] 5. The method of claim 1 wherein the IP sharing device is a dynamic host configuration protocol (DHCP) server or a network address translation (NAT) server.

[c6] 6. The method of claim 2 wherein step (a) further comprises utilizing an access point (AP) for bridging the IP-based PBX extension and the IP sharing device through the wireless transmission protocol, and the IP-based PBX extension is in wireless communication with the AP.

[c7] 7. The method of claim 1 wherein step (b) further comprises adding the virtual IP address to the packet.

[c8] 8. The method of claim 1 wherein the computer network

is an Internet network.

[c9] 9. A telecommunication system comprising:
an IP sharing device for providing a virtual IP address;
an IP-based PBX extension electrically connected to the IP sharing device for requesting the virtual IP address from the IP sharing device device, wherein the IP-based PBX extension having the virtual IP address is capable of outputting a packet having the data through the IP sharing device device;
a host; and
a sender electrically connected to the IP sharing device device, the sender with a first IP address capable of delivering the packet received from the IP sharing device to the host with a second IP address through a computer network;
wherein the host extracts the data from the packet.

[c10] 10. The telecommunication system of claim 9 wherein the IP-based PBX extension utilizes either a wired transmission protocol or a wireless transmission protocol to access the IP sharing device for requesting the virtual IP address.

[c11] 11. The telecommunication system of claim 10 wherein before requesting the virtual IP address, the IP-based PBX extension checks if the IP-based PBX extension is

capable of accessing the IP sharing device through the wired transmission protocol, wherein if the IP-based PBX extension is capable of accessing the IP sharing device through the wired transmission protocol, the IP-based PBX extension utilizes the IEEE 802.3 protocol for requesting the virtual IP address, and if the IP-based PBX extension is not capable of accessing the IP sharing device through the wired transmission protocol, the IP-based PBX extension utilizes the wireless transmission protocol for requesting the virtual IP address.

[c12] 12. The telecommunication system of claim 11 wherein the wired transmission protocol is an IEEE 802.3 protocol, and the wireless transmission protocol is an IEEE 802.11x protocol.

[c13] 13. The telecommunication system of claim 9 wherein the IP sharing device is a dynamic host configuration protocol (DHCP) server or a network address translation (NAT) server.

[c14] 14. The telecommunication system of claim 10 further comprising an access point (AP) electrically connected to the IP-based PBX extension and the IP sharing device through the wireless transmission protocol, and the IP-based PBX extension is in wireless telecommunication with the AP.

[c15] 15. The telecommunication system of claim 9 wherein the IP-based PBX extension adds the virtual IP address to the packet.

[c16] 16. The telecommunication system of claim 9 wherein the computer network is an Internet network.

[c17] 17. The telecommunication system of claim 9 wherein the sender is an xDSL modem or a cable modem.